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**Operational Exploitation:  
Easier Said Than Done**

**A Monograph  
by  
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Field Artillery**



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## ABSTRACT

OPERATIONAL EXPLOITATION -- EASIER SAID THAN DONE by MAJ Gary J. McCarty, USA, 51 pages.

This monograph examines operational exploitation and questions if enough guidance is available to give a commander the detail required to execute such an operation. Field Manual 100-5, Operations, requires commanders to plan exploitation as an integral part of every attack. Exactly how to do so has been left up to the commander, with little specific guidance available to assist him with the actions necessary to conduct such a complex operation. What are these actions, and how do we plan for them?

The monograph first examines operational art and maneuver warfare through the applicable writings of Sun Tzu, Carl Von Clausewitz, V.K. Triandafillov, Mikhail Tukhachevskiy, and R.E. Simpkin. It then provides three historical examples of exploitations and analyzes them against the criteria of successfully reaching the objective and being able to continue with future missions. Lessons learned from Soviet and US Army exploitations are examined and their implications to current operations discussed.

The author concludes that current US Army doctrine has a base of theory required to conduct operational maneuver and exploitation, but lacks the detailed guidance necessary to accomplish numerous required actions. He recommends that such guidance be provided in field manuals.

Table of Contents

	Page
I. Introduction.....	1
II. Theory.....	3
III. Historical Examples.....	8
IV. Analysis.....	15
V. Conclusions and Implications.....	34
Endnotes.....	40
Bibliography.....	44

## I. Introduction

Exploitation forces drive swiftly for deep objectives, seizing command posts, severing escape routes, and striking at reserves, artillery, and combat support units to prevent the enemy from reorganizing an effective defense. Exploitation forces should be large and reasonably self-sufficient. Well supported by tactical air, air cavalry, and attack helicopters, they should be able to change direction on short notice. The commander must provide his exploiting forces with mobile support, including air resupply to move emergency lifts of POL and ammunition.<sup>1</sup>

Field Manual 100-5, Operations, defines exploitation as "the bold continuation of the attack following initial success, pursuit, the relentless destruction or capture of fleeing enemy forces who have lost the capability to resist."<sup>2</sup> It recognizes the importance of exploiting into the depth of the theater of operations, and charges commanders to plan exploitation as an integral part of the attack.<sup>3</sup>

Exactly how to plan for such exploitation, however, has been left up to the commander. General guidance is provided that indicates the need for attachments to the exploiting force, identification of possible objectives, conduct of breakthrough penetrations, the need for follow-on forces, and other required actions. The specifics of how each of these complex actions necessary for successful exploitation are accomplished are simply not provided.

My purpose in this monograph is to examine some of

the specifics that must be performed to successfully accomplish exploitation at the operational level. My original intent was to look at the structure of such a force. I have discovered, however, that structure is only one of many complex requirements necessary to conduct an operational exploitation. Other factors that must be considered include the depth of the objective, security, logistics, planning requirements, movement and maneuver, and deception. My research question, therefore, has evolved into one that asks how does a commander specifically plan and execute a successful exploitation at the operational level?

While conducting my research, it became apparent that the Soviets have studied operational exploitation much more extensively than we have. Material on Soviet exploitations was abundant, while comparatively little was found dealing with US exploitations. A large percentage of the Soviet material was translated by Colonel David M. Glantz, Soviet Army Studies Office, Fort Leavenworth, Kansas. While some other material was available, Colonel Glantz's was most directly applicable to my research question and criteria. Most of my analysis of Soviet exploitations is drawn from what I considered the most relevant portions of his works. The conclusions in Section V are not Colonel Glantz's, however, but my own.



This monograph is structured into four general sections. The first section, theory, will examine operational art and maneuver warfare through the writings of Sun Tzu, Carl Von Clausewitz, V.K. Triandafillov, Mikhail Tukhachevskiy, and R.E. Simpkin. The second section will examine three historical examples of exploitations. These include two Soviet examples and the Allied Forces breakout and exploitation following Operation COBRA, all from the Second World War. The third section will analyze requirements and lessons learned from Soviet and US exploitations. The fourth section will present conclusions and implications for the US Army today.

The criteria that I have used to analyze successful operational exploitations include two important requirements. First, the exploiting force must be able to reach its objective and accomplish its mission. This requires speed and mobility. Second, such a force must be able to continue with future missions after reaching the objective. These may include continued exploitation, pursuit, or conducting a defense.

## II. Theory

We all know what attrition is. It is war in the administrative manner, of Eisenhower rather than Patton, in which the important command decisions are in fact logistics deci-

sions. The enemy is treated as a mere inventory of targets and warfare is a matter of mustering superior resources to destroy his forces by sheer firepower and weight of materiel.

Maneuver, by contrast, is not a familiar practice in recent American military operational form. In fact, in the language of the US Army, maneuver is frequently confused with mere movement, or at least offensive movement. Maneuver may well call for movement but it is very much more than that. It can be applied not only in ground combat but in all warfare, and indeed in all things military, even research and development. Maneuver describes 'relational' action - that is, action guided by a close study of the enemy and his way of doing things - where the purpose is to muster some localized or specialized strength against the identified points of weakness of an enemy that may have superiority overall.<sup>4</sup>

Exploitation is an important part of operational art and maneuver warfare. Using exploitation to maneuver against the weakness of an enemy to unhinge his strength and defeat his center of gravity was recognized by many theorists of warfare.

Sun Tzu stressed maneuver in warfare. He stated that "to capture the enemy's army is better than to destroy it."<sup>5</sup> This was the essence of Sun Tzu's philosophy of the indirect approach. It was better to defeat an enemy through maneuver, or indirectly, than it was to engage him through direct combat. "For to win one hundred victories in one hundred battles is not the acme of skill. To subdue the enemy without fighting is the acme of skill."<sup>5</sup>

Sun Tzu believed that maneuver and positioning could be accomplished through the use of a normal force and an extraordinary force. The normal force was used to engage and fix an enemy force, while the extraordinary force would maneuver and attack the fixed enemy force from the flanks or rear.<sup>2</sup> In certain circumstances, this extraordinary force might be equated to an exploitation force used to penetrate into the enemy's rear.

Sun Tzu believed that maneuver was the very essence of a successful campaign. If a battle could be won by maneuvering and not fighting, so much the better. His ideas are fundamental to the concept of maneuver warfare, and directly opposed to positional, or attrition warfare. Sun Tzu's philosophy of fighting indirectly can be compared to the writings of Carl Von Clausewitz, who favored a more direct approach.

Clausewitz described war as an act of force to compel the enemy to do one's will.<sup>3</sup> To do so, he believed that the enemy's fighting forces had to be destroyed.<sup>4</sup>

Clausewitz recognized that one might destroy an enemy through maneuver, but warned that maneuver alone would not normally defeat an opponent.

It would therefore be quite mistaken, both within tactics and strategy, to think that falling on the enemy's rear is an accomplishment in itself. It has no value in isolation, but will become effective only in conjunction with other factors.<sup>5</sup>

He qualifies this by stating that maneuver may be required in certain situations.

If an attacker sees that he can get his way without assaulting them [defensive positions], it would be stupid of him to attempt it. If he cannot, the question is whether he can maneuver the defender out by threatening his flank.<sup>11</sup>

Clausewitz's concepts are important to current operational exploitation. When conducted, it should not be done so in isolation, but supported by other operations throughout the battlefield. Maneuvering to the enemy's flanks and rear was relevant, but only in coordination with other actions. He believed that exploitation and pursuit were critical to success, and stated that "... the real fruits of victory are won only in pursuit."<sup>12</sup> V.K. Triandafillov and M.N. Tukhachevskiy would later develop this concept in detail.

Triandafillov made a significant impact on Soviet thought and provided the basis for their theory of the deep operation.<sup>13</sup> He recognized that

the purpose of successive operations was to achieve the decisive strategic goal set forth in the campaign plan. Such decision meant the total destruction of the enemy army throughout the depths of his deployment, and also meant that the deep penetration of several hundred kilometers into enemy territory.<sup>14</sup>

These successive operations were linked in time and space, and made up the campaign. The campaign and operation would be one.<sup>15</sup> These ideas were brought to

fruition by M.N. Tukhachevskiy.

Tukhachevskiy saw a greater potential for deep battle with new means of warfare available, chiefly airborne motorized and mechanized assault landing forces. Battles in depth had become possible, along with the ability to fix and destroy an enemy along the entire depths of his deployment.<sup>16</sup> Tukhachevskiy called this ability the deep battle. He also recognized that the basic forms of destructive operations were the breakthrough followed by enveloping maneuver, with independent actions by large cavalry formations extremely important.<sup>17</sup>

Tukhachevskiy's concept of large scale independent cavalry actions was the forerunner of what was to become the concept of Soviet mobile groups. He cautioned that such independent forces should not lose contact with the main forces. Their actions must be coordinated with those of the main forces, and the independent force should be well supported by powerful air elements and armored equipment.<sup>18</sup>

Triandafillov and Tukhachevskiy brought the Soviet concept of deep battle and maneuver warfare into modern context. The Soviets would demonstrate that these concepts would indeed succeed on the battlefields of the Second World War.

Richard Simpkin further developed the concept of

deep battle in maneuver warfare. He considered the introduction of the helicopter and its use in airborne assault, specifically in the Soviet airborne assault brigade, to be a "triple step forward" in the conduct of war.<sup>19</sup> With such assets, the enemy could truly be attacked throughout the depth of his deployment. They would allow maneuver warfare and exploitation to be carried out to their logical conclusions. Coordinated attacks by breakthrough, exploitation, and air assault forces would serve to paralyze the enemy and cripple his ability to continue to fight.

These theorists all recognized the importance of maneuver in the conduct of war. Exploitation, in coordination with other actions, could paralyze the enemy throughout the depths of his deployment. Historical examples provide some proof that these theorists were correct.

### III. Historical Examples

The use of operational exploitation has been demonstrated very successfully by the Soviets in World War II. This section will examine three examples of exploitation operations. The first two will be Soviet: one that was relatively unsuccessful, and one that was very successful. The third will examine the Allied

Forces breakout after Operation COBRA in Normandy.

The Middle Don Offensive. Conducted from December 1942 to August 1943, the Middle Don Offensive is an example of an early Soviet attempt to conduct an operational penetration with successful exploitation and linkup to form operational encirclement.<sup>20</sup> Its aim was to destroy the Italian 8th Army and the German Army Detachment Hollidt, while also tearing open a major gap in the German forces' left flank on the entire southern portion of the eastern front.<sup>21</sup>

The offensive began on 16 December 1942. The Soviets planned to create initial penetrations, followed by the breakthrough of their exploiting forces, the most important of which were the 24th and 25th Tank Corps. The 25th Tank Corps was committed on 16 December to assist the breakthrough forces. The 24th Tank Corps was committed on 18 December as an exploiting force, passing through an existing gap created by the breakthrough forces and the 25th Tank Corps.

As the 24th Tank Corps penetrated into the operational depth of the defense, it began to experience some severe maintenance and logistical problems, losing some 40 to 60 percent of its tanks simply from the wear and tear of movement.<sup>22</sup> It was still over 30 kilometers from its objective, and was attacked by German aircraft on three separate occasions before reaching it.

The 24th Tank Corps also began to outdistance its rifle infantry support by tens of kilometers, and was not within a mutual supporting distance from the other exploiting tank corps, the 25th.<sup>23</sup> The 24th eventually reached its objective, the village of Tatsinskaya, on 22 December, penetrating over 120 miles into the German rear.

When the 24th Tank Corps reached the village, it was out of fuel and ammunition, completely isolated from any support, and down to only 59 tanks. This isolation became more critical after two German panzer divisions cut off the tank corps' escape routes. The commander of the 24th Tank Corps urgently requested resupply of ammunition and fuel, permission to withdraw, and new orders.<sup>24</sup>

The front commander tried repeatedly to relieve the 24th Tank Corps, but could not. Authorization to break out was given on 29 December. The breakout occurred that night. Most of the corps' equipment was lost, but the commander succeeded in getting out part of his personnel. They successfully joined up with elements of two other mobile corps, the 25th Tank and the 1st Guards Mechanized. By that time, the composite strength of these three corps was down to less than 50 tanks.<sup>25</sup>

The 120-mile exploitation by the 24th Tank Corps was over. It had successfully reached its objective, and



had accounted for nearly 12,000 German casualties, captured 4,769 prisoners, and destroyed 84 tanks, 106 guns, and 431 aircraft.<sup>26</sup> The 24th Tank Corps was itself almost completely destroyed. It had simply gone too deep without adequate support. The Soviets lacked the necessary equipment to adequately sustain the operation, and had not properly planned for its support. They studied this operation carefully, however, and found remedies to these problems by the time of the Vistula-Oder offensive, which would occur two years later.

The Vistula-Oder Offensive. The Vistula-Oder offensive was conducted from 12 January 1945 through 2 February 1945. It is considered to be one of the most successful Soviet operations conducted during the Great Patriotic War. After years of unsuccessful or partially successful attempts, the Soviets finally got their operational concepts and means of sustainment right in the Vistula-Oder offensive, to include operational exploitation.

The Soviets consider Vistula-Oder to be relevant to a current NATO/Warsaw Pact scenario. At the start of this offensive, the Soviets were at last superior to their German opponents in manpower, artillery and armor correlation of forces. Vistula-Oder was the largest Soviet strategic offensive of the war, involving 2.2 million men, over 1.5 million of which were in combat

units. The strategic correlation of force ratios were 4.5:1 to 5:1. It reached depths of 550 to 600 kilometers, with exploitations conducted by tank armies, corps, and divisions. The success of Vistula-Oder was decisive. The entire German Army Group A, significantly weakened since 1942 and in need of replacement equipment and personnel, was smashed and literally destroyed.<sup>27</sup>

One of the most significant points about this operation was the Soviet concern about sustainment and the survival of the exploiting forces. Once the penetration occurred, the entire operation became a problem of sustaining deep operations. Unlike the Middle Don offensive, where entire tank corps were destroyed even though they reached their objectives, units in the Vistula-Oder offensive reached deep objectives with most of their combat strength. The 3rd Guards Tank Army, for example, began the operation with 921 tanks. After advancing into the operational depth of the German army for 17 days, it finished the operation with 750 tanks. That ability to maintain high strength levels indicates that the Soviets now had the equipment required to sustain operational exploitation. They also had the sustainment doctrine and planning ability required to achieve a high degree of reconstruction, repair, and supply effort.<sup>28</sup>

The success of this offensive was the result of many

lessons learned. The Soviets accomplished their exploitation mission while ensuring that the exploitation forces survived through sustainment and control of the conditions by which the exploitation was conducted. An analysis of these lessons will be discussed in the analysis section, but we will first examine a historical example of a US Army exploitation.

The COBRA Breakout. Operations conducted during and after the COBRA breakout, 25 through 31 July 1944, were the closest the Allies came to an operational exploitation during the war. After the Allies successfully landed at Normandy on 6 June 1944, they found themselves in a stalemate with the Germans in the Bocage country of France. Unable to breakout, General Omar Bradley planned Operation COBRA: a massive carpet bombing along a narrow front to literally blast an opening through the German defenses.

After a premature bombing on 24 July, the operation began on 25 July. US Army infantry divisions pushed forward following the bombing, and mobile columns of the exploitation forces were committed the following day, 26 July. By the end of 27 July, it was apparent to General Bradley that a penetration had occurred, and the Allied forces began pouring through the gap into central France.

One of the spearhead forces was the VIII(US) Corps. It committed its 4th Armored Division on the night of 28

July to begin armored exploitation of the breakthrough. Once into the German rear, the 4th Armored Division moved rapidly to its objectives, covering 87 kilometers in four days with its Combat Command A, and 68 kilometers in three days with its Combat Command B.<sup>29</sup>

By 4 August, the Allies had captured Rennes in Brittany and had been refueled and resupplied. The 4th Armored Division commander, MG John S. Wood, believed that the key to the American success was to continue the exploitation to the east, pursuing the bulk of the German Army to its destruction. His division and VIII(US) Corps were in an excellent position to do so.<sup>30</sup> His superiors believed that the French ports to the west were more critical, however, and the 4th Armored Division was ordered to seize Vannes and Lorient.

This decision allowed the Germans to recover, and by the time the exploitation to the east was resumed on 15 August, they had reconstituted a defense along the German frontier. Against stiffening resistance, the Allies continued the exploitation to the Moselle River, where they arrived on 1 September. Exhausted, out of fuel, and off of their maps, the Allies could not force a crossing. Their exploitation and rapid dash across France had finally come to a halt.<sup>31</sup>

Operation COBRA had created the conditions for the exploitation across France, but the Allies had failed to

take advantage of many of the opportunities it presented. Although Allied units penetrated well into the tactical depths of the German Army, it is questionable whether they ever achieved penetration into the operational depths. The next section will analyze these exploitations and examine what should be considered to achieve successful exploitation required to meet the criteria of mission accomplishment and the capability to continue with future operations.

#### IV. Analysis

The Soviets believe that their lessons learned from World War II are directly applicable to operations that they would conduct today and in the future, to include those that might be conducted against NATO in Western Europe. Many of the US lessons learned in World War II can also be applied to current operations. In this section, I will examine some of these Soviet and US lessons learned.

Although these exploitations were conducted by separate armies along different fronts, my research indicated that there are some common factors that contributed directly to their success or failure. Logistics was critical to all three. It limited the success of the Middle Don and COBRA offensives, while

allowing greater success in the Vistula-Oder offensive. Additionally, the element of surprise was present in each offensive, and allowed initial success, especially during the breakthrough penetration phases. Coordinated air support was another critical factor that was common, directly contributing to the success of the breakthroughs.

From the days of Triandafillov and Tukhachevskiy, the Soviets have traditionally felt that attrition warfare was a "loser," and that deep operations were the keys to success.<sup>32</sup> They have since believed that

the conduct of operational maneuver is essential for a military force to achieve success at the operational level of war... These concepts envisioned the use of mechanized forces to produce both rapid tactical penetrations and deep operational exploitation.<sup>33</sup>

This belief was at the root level of Soviet operations conducted during the war. Soviet operational maneuver matured as more operations were conducted and lessons learned were applied.

The Soviets almost always attempted to achieve a tactical penetration followed by an operational exploitation. Since some of their early attempts at this were less than successful, they developed specific guidance on exactly how such an operation should be conducted. I will discuss this guidance by addressing some major

Soviet areas of consideration, starting with air-ground cooperation.

The Soviets found that cooperation with the air force was critical. They address the following main points:

1. Air forces must work in close cooperation with exploiting forces to locate, interdict, and assist in the destruction of the enemy operational reserves. "This cooperation between mobile troops and the air arm shall be planned on front or army scale and made possible by uninterrupted reconnaissance of the whereabouts of enemy operational reserves and a precise estimation of their probable approach to the penetration area indicating the time and place of arrival."<sup>34</sup>

2. Coordinated air strikes should allow simultaneous attacks against ground targets by both air and ground forces. The commander should be able to expect aircraft to appear "not later than 20 to 30 minutes after calling for air support."<sup>35</sup>

3. Airborne infantry should be deployed on the widest possible scale to assist in the widening of the penetration breach, and to assist in the blocking of operational reserves and their deployment from the operational depth of the enemy defenses."<sup>36</sup>

4. Penetration and exploitation forces should be reinforced with anti-aircraft artillery weapons, and the

air arm should protect these forces during the penetration and exploitation. The success of forces exploiting the penetration depends directly on the air superiority of the air arm.<sup>37</sup>

Another area of consideration concerned reinforcing arms. Exploiting forces must be reinforced to be sufficiently strong to overcome operational reserves and to reach their objectives. Any such reinforcements must not impair their mobility and maneuverability. The Soviets conclude that:

1. The use of towed artillery to reinforce reduced the mobile forces maneuverability and in many cases the artillery could not keep up with the mobile force. "(In all other cases) it is expedient to attach to mobile formations self-propelled howitzer artillery capable of moving anywhere with tanks, of covering these with strong fire on short notice, and of repulsing enemy tank attacks."<sup>38</sup>

2. Rocket launcher units proved to be invaluable. They were highly maneuverable, and could lay down fire barrages very rapidly. In most cases, exploiting tank or mechanized corps had at their disposal one rocket launcher regiment or battalion.<sup>39</sup>

3. Anti-tank weapon reinforcements should be given "special emphasis." The exploiting force should seek to bypass enemy strength and seek operational encirclement



of strong enemy armored forces.

In possession of powerful anti-tank weapons, a corps commander can employ them to cover his flanks during an enveloping maneuver, to protect his concentration and deep jumping-off position areas, or use them as accompanying guns. Experience of actual operations suggests the advisability of assigning one anti-tank regiment per corps.<sup>40</sup>

4. Engineers must ensure unobstructed movement in the depth of the enemy defensive zone. Corps engineers and reinforcing engineers should be tasked at the time the penetration is conducted.<sup>41</sup>

5. Since exploiting forces may operate many kilometers into the depths of the enemy, they should be reinforced with the applicable long range communications ability to communicate with their higher headquarters. This also allows communication with adjacent units. A flight of liaison aircraft should also be attached to each corps.<sup>42</sup>

6. Additional reconnaissance assets must be added to ensure that the exploiting force has accurate and timely information about enemy operational reserves.

The commander of a corps operating in the depth of enemy defenses, constantly fighting in conditions of encirclement, must know beforehand about the approach of enemy reserves and about their displacements. Hence, a corps must have its own reconnaissance aircraft with the aid of which it could conduct reconnaissance within a radius of not less than 100 kilometers.<sup>43</sup>

The element of surprise and the massing of forces

[REDACTED]

was critical to success in an identified breakthrough area. Although tactical surprise was almost impossible to achieve, they found that they could attain operational surprise by massing forces at a relatively narrow attack sector. By moving forces into an area and deceiving the enemy as to their strength and location, they could attain local superiority in correlation of forces. "Secrecy, as one of the elements of surprise, is always essential particularly when a penetration is at stake. To achieve operational surprise is an indispensable prerequisite to any operation with a definite objective."<sup>44</sup>

The massing of exploiting forces required a deep operational formation, a common mission, and unity of command.

Actual practice shows that greatest successes were achieved by corps belonging to the second echelon and committed into the penetration as a group in one sector. On the other hand, the tasks of the corps conducting independent action were limited in depth, and their efforts were less effective. This suggests the conclusion that ... it is necessary to merge tank and mechanized corps into one mobile group, consisting of several corps (not less than two), and to commit this group into penetration by echelons - in two or even three echelons - along one axis.<sup>45</sup>

These mobile groups should ideally consist of one mechanized corps with the remaining elements consisting of tank corps. "While they are being formed and welded together, formations and their commanders should receive

their control organs and go through combat training as component parts of large mobile groups."<sup>46</sup> They should not, for example, simply be ad hoc formations that are organized at the last minute.

A fourth area of consideration was the concentration of forces near the area of action. Exploitation forces must move to an area of concentration in the area of the forthcoming action. This can be done by rail or road movement. Lengthy movement of tank or mechanized units by road march must be avoided.

This can be confirmed by taking as an example the concentration maneuver of the 2nd Tank Army in February 1943. This Army had to complete a march through roadless country over a distance of more than 200 kilometers and lost about 55 percent of its equipment.<sup>47</sup>

The concentration area must be well prepared ahead of time, and offer cover and concealment. Several routes into and out of the area should be available. Units should arrive by echelon and use as many different routes as possible.

Preparations for the commitment into the penetration should start immediately after the exploitation forces arrive at the area of concentration. The commander and his subordinates should personally reconnoiter the area identified for commitment of the unit into the penetration, as well as the approach routes to the area.

Stand-by areas are identified for corps units to move up to after receiving their assignment to complete their preparations. The Soviets found that the normal length of time required for a tank or mechanized corps to conduct final preparations was seven to ten days. This length of time required active cover, concealment and camouflage measures, along with protection from air attack. Stand-by areas were normally selected within 20 to 40 kilometers of the front, depending upon terrain.<sup>48</sup>

Specific actions within the stand-by area included:

- reconnaissance of the zone where commitment into the penetration of the tank (mechanized) corps is scheduled to take place; reconnaissance of movement routes to assembly areas, if called for in the plan, of the area of jumping-off positions and of approaches to the enemy forward line of defense;
- gathering of information about the enemy within the sector earmarked for the corps, commitment into the penetration, the enemy defense system throughout the tactical depth, the location of his reserves, the possibilities and probable time of their arrival within the corps' area of action in the operational depth of the enemy;
- organization of cooperation with combined arms formations during the time needed to pass through the breach;
- preparation of officers and headquarters for the forthcoming action;
- preparation of weapons and equipment and procurement of supplies and technical services for the forthcoming operation;
- drafting of plans for the corps' commitment into the penetration and for combat security.<sup>49</sup>

The Soviets found that it was critical to obtain accurate intelligence about the enemy and the terrain over which the exploitation was to be conducted:

Hence, in exploiting the penetration it is highly important tank commanders know the terrain in the operational depth of the enemy defenses, the enemy grouping, and his capabilities for bringing up reserves. The completeness of information would make it possible to foresee any kind of surprises, to plan beforehand various measures designed to ward off an eventual counter-thrust undertaken by enemy reserves, and to ensure the irresistibility of the tank (mechanized) corps' operation in the depth of enemy defenses. Neither time nor effort should be spared in procuring such information. Detailed intelligence on the operational depth of enemy defenses enables the corps to conduct a most rewarding reconnaissance while exploiting the penetration, instead of looking everywhere for the enemy.<sup>50</sup>

Cooperation between the air arm and the ground forces was planned in detail in two phases:

- during the preparatory stage: providing cover for the tank corps, conducting reconnaissance, taking of aerial photographs in the zone of action, collecting information on the operational reserves of the enemy (on request), making available such information to the corps commander in good time, thus enabling him to make good use of it;

- at the time of commitment to the penetration and action in the depth of enemy defenses, besides providing cover to corps formations in action, which is one of the principle tasks of the air force, conducting aerial reconnaissance according to the corps plans and orders, guiding tanks to their targets and, together with tanks, attacking oncoming enemy reserves in order to annihilate them piece by piece.<sup>51</sup>

Some of the critical lessons that the Soviets applied to achieve success concerned logistics and supply

at the operational level. A major difference between the unsuccessful exploitation of the Middle Don offensive and the successful exploitations of the Vistula-Oder offensive was the Soviet ability to sustain and support their exploiting forces. They learned that logistics must be thought out and planned in detail.

A logistics and supply plan of an operation should be an integral part of the operational plan of employment, and developed simultaneously with the operational plan. Specifically, the logistics and supply plan must cover:

1. The setting up of rear services in the forming-up place and displacement of rear services sub-units in the course of the operation (echelonment of rear services).
2. The organization of haulage of all types of supplies and setting of time, place, volume and transport facilities for each delivery.
3. The employment of locally available and captured equipment.
4. The organization of repair service and salvaging of broken-down vehicles.
5. The collection and salvaging of captured or abandoned equipment.
6. The organization of protection for the lines of communication and the guarding of the rear installation.
7. The organization of signals and rear-services control in the course of the operation.<sup>52</sup>

Air resupply should be planned in advance to ensure that forces operating deep in the operational depths will

be adequately supported. Such forces may have no secure lines of communication to the rear. The failure of air resupply to adequately support the 24th Tank Corps encircled at Tatsinskaya was blamed on lack of adequate prior planning to foresee such a requirement.<sup>53</sup>

Soviet corps did not have the organic equipment required to recover damaged tanks, which were often towed by other tanks. Such equipment should be added as a reinforcing asset.

A secure line of communication to the rear should be maintained if possible. The mission of securing these lines should be given to commanders of cavalry formations that are operating in the zone of action. Infantry forces can also be used for this mission.

The assignment of missions was also an area of consideration. The mission of the exploiting force must be clearly worded. It should include the purpose of the mission and the commander's intent.

Knowing the objectives and tasks for each day of the operation and with a clear idea of the overall concept of the command, the corps commander should be able to choose the most expedient method for the completion of his mission. A clear idea of the overall concept of the command is also essential, because the situation at hand is likely to change so rapidly and radically, that the headquarters organizing the operation would not always have time to take the new situation into account in its instructions.

In describing an assignment it is not advisable to go into details attempting to suggest various methods of its completion. This would be unrealistic and liable to re-

strain the initiative of the corps commander.

In all instances, concrete data on the location of enemy reserves in his operational depth, or rearward units and headquarters make it possible for the corps commander to take more decisive action.<sup>54</sup>

Another area considered the rates and depths of advance. They must be planned based upon intelligence, terrain and the objective. Full consideration must also be given to the role of each exploitation force in the operation and its capabilities, specifically the survival capacity of the tank corps as a fighting organism.

Although operations of tank corps were planned to last for an average of three to four days, some corps in fact were forced to operate for as much as 22 days without interruption. After such extended operations, these corps were mauled so badly that they could no longer continue with operations. Their reconstitution was an extensive and time consuming process.

Experience has shown that a corps is capable of conducting uninterrupted operations in the course of two to three days and, after a half or one full day's break for inspection and mechanical repairs, for two to three days longer. After five to seven days of hard fighting, together with two to three days of strenuous work done by the personnel prior to the commitment into the penetration, the corps should be withdrawn from action for repairs of weapons and equipment and for bringing up supplies to the prescribed norm. If these conditions are observed, it should be possible to eliminate the necessity of time consuming "capital repairs" of tank (mechanized) corps.<sup>55</sup>



The Soviets also discovered the importance of operational balance by the Vistula-Oder offensive. They were careful to control the rate and depth of advance of their exploiting forces. This resulted in a fairly even rate of advance along the entire front of the offensive, and ensured that exploiting forces did not overextend and become cut off, as had happened in previous operations. Such control ensured that operational exploitation forces reached their objectives with adequate combat power and able to continue with future operations.<sup>56</sup>

Lessons were learned about the width of the zone leading into the penetration. The width of such a zone will depend upon the commander's intentions and the terrain. The wider the penetration, however, the greater will be the depth that the operation can be carried, and the sooner the exploitation force can be committed.

It should be figured that under normal conditions a corps requires for its commitment into the penetration a sector from six to eight kilometers wide, as all available information points to the fact that the maneuverability of a corps committed into the penetration within a five or six kilometer sector was to some extent fettered. In addition, it is necessary to have on both flanks a sector from three to five kilometers wide offering protection against enemy mortar and observed artillery fire. Hence, the normal width of the gap required for the commitment into the penetration of a corps conducting an independent action should extend from 12 to 18 kilometers.<sup>57</sup>

Pre-combat and combat formations were another area of consideration. Terrain and the commander's intentions should be the primary consideration when organizing the pre-combat and combat formation of the exploiting force. Soviet experience has lead them to observe the following rules:

1. Provided the penetration is wide and the sector of corp's commitment with the penetration has a sufficient number of routes, the corps may be arranged in one echelon, on condition that each brigade can be assigned a route of its own.
2. Experience has proven that the most flexible and easily maneuverable combat formation is the two-echelon one.
3. During the operations set forth herein some of our corps were committed into the penetration in as many as three echelons.
4. No matter what type of formation is used by the corps, the artillery must constitute a part of the first echelon's composition and goes into action under the cover of tanks. The greater part of the anti-tank artillery must be kept on the open flank (flanks)...and shall be employed as one body, without being split into several parts.
5. Depending upon the situation, following the corp's commitment into the penetration, when it is necessary to seize a certain line in order to safeguard the corp's concentration or deployment, an advantage may be gained by having within the first echelon motorized infantry reinforced by artillery and tanks.
6. All the varied formations of tank (mechanized) corps are merely relative because they last only during the stage of fighting for the depth of the tactical defense, before the corps is deployed for action. In the future, combat formations will in each separate case take on the form which is best suited to meet the actually existing situation. Consequently, the

principal requirements for the selection of the combat formation of a tank (mechanized) corps during its commitment into the penetration should be the swiftest possible penetration into the tactical depth of the enemy defenses, the speediest possible deployment, the most convenient maneuvering and, in some cases, the possibility of changing the marching order while in motion.<sup>58</sup>

Combat security was critical. Combat security for a tank corps during its commitment into the penetration should include reconnaissance elements, followed by forward detachments. These elements should ensure that the main body moves unhindered and is protected from enemy forces.

How should the timing of the movement into the penetration be determined? Ideally, the exploiting force should be committed immediately following the penetration and move unhindered through the gap. At times, it may have to assist the breakthrough forces with the penetration, but this is not desirable.

The army (front) commander sets the time for the advance into the penetration, but the time he sets only indicates the moment of readiness to start moving, because it is impossible to estimate precisely in advance with what success and at what rate of speed the troops accomplishing the penetration will go forward." The exploiting force commander must be well-informed of the situation and calculate the time for advancing into the penetration.<sup>59</sup>

A final area was the action of the tank (mechanized) corps in the operational depth of enemy defenses. After studying exploitation operations over the entire duration

of the war, the Soviets reached the following conclusions concerning actions in the operational depths of the enemy:

1. The action of a tank (mechanized) corps in the exploitation of the penetration, depending on the existing situation, may be highly varied in form:

- tactical march maneuver leading into a specific area for the purpose of creating pre-conditions for operational encirclement of some enemy grouping or for closing in on the enemy;
- meeting engagements with operational reserves which are moving up from the depth or with withdrawing groupings;
- attacks against the enemy who hurriedly took up the defense in the attempt to stem the advance of the tank corps;
- pursuit of the withdrawing enemy;
- defense of the line in conditions of encirclement.

2. The action of the tank (mechanized) corps in the operational depth of enemy defenses will have one special characteristic in the lightning speed of the engagements fought. For this reason, the command and control of tank (mechanized) corps and the type of combat formation used for fighting in the depth of enemy defenses should be especially flexible.

3. In the course of corp's action its rear will remain unprotected, particularly when the corps is far away from the main forces advancing frontally. For this reason it is necessary to contemplate measures ensuring communications.

4. Usually the principal aim of a tank (mechanized) corps will be the determination to break up the enemy grouping into isolated parts, to encircle these, and to destroy them piecemeal.

5. The action of the corps' main forces must have two fundamental objectives: the maneuver and the piecemeal destruction of the enemy. Hence, all secondary objectives and isolated enemy strongpoints within the corps' sector of action should be bypassed and left in the rear... The pursuit of the enemy must be kept

up until his utter destruction. The corps may break off its pursuit only on orders of the front (army) command.<sup>60</sup>

The Soviets gathered a wealth of experience conducting exploitations during the war. As the war progressed and they learned from their mistakes, they were able to apply what they were learning and become proficient in breakthrough penetrations with operational exploitations.

The US Army has conducted some study into the lessons learned from the COBRA breakout, though not nearly as detailed as the Soviet studies of Soviet operations. The lessons learned identified in a 1985 study conducted by students at the US Army Command and General Staff College for the Combat Studies Institute included:

1. Artillery support and operations were outstanding during the operation and significantly influenced the US forces in accomplishing the objective.
2. Logistics while not a problem early on became a nightmare as the combat forces relentlessly pursued the Germans across France. The long supply line coupled with operational German combat forces that had been bypassed by US combat forces created a significant problem in distribution which eventually led to a slow down and halt near the German border.
3. Command and control problems existed due to the rapidly changing situations which evolved into lengthy message passage times. It took 24 to 36 hours to get a message transmitted and acknowledged from the corps to the division. In fact, the division commander was forced to frequently act independently due to the rapidly changing situations.
4. The large amount of prisoners of war taken

was unexpected and created problems for the US forces. German leaders were used to march men to the rear so the lead combat forces could press the attack.

5. During the breakthrough and breakout excessive mileage and hours were placed upon equipment. Consequently, it is difficult to estimate how much of a maintenance effort was required.

6. Combined arms operations and combined air operations were problem areas initially, but with experience, combined operations improved and were ultimately very successful.

7. Combined aerial and armored reconnaissance proved to be totally effective in a fast moving, fluid situation.

8. The mobility of the American forces allowed them to swing the direction of attack at will. This mobility allowed for the quick run across France, but it also created the logistics problems.

9. The prior training of the 4th Armored Division proved to be the paramount factor in their almost unbelievable success. Their performance under fire was unique and totally effective.

10. More night attacks and night air reconnaissance may have prevented a German force from escaping through the Falaise pocket.

11. The need to start the initiative and to maintain it requires independent decisions made by sound leaders as the communications system proved inadequate during the operation. Once the initiative is gained do not lose it, even if it means gambling with a long supply pipeline.

12. All planning required is totally necessary but it must provide flexibility. There cannot be one plan. All contingencies must be considered and in this type of operation, the force with the initiative must be innovative and prepared to exploit presented opportunities.<sup>61</sup>

These lessons may not be as detailed as the Soviet lessons, but they touch upon some common threads. Flexibility, initiative, independent action, logistics, command and control, combined arms operations - all are common to both studies.

It may be argued, however, that the breakout resulting from COBRA never developed into more than an exploitation into the tactical depth of the German defenses. Major Gregory Fontenot, in his article "The Promise of COBRA: The Reality of Manchuria," maintains that the US Army in World War II never developed an operational level doctrine. Because of this, they never envisioned operational depth or the need to exploit it.<sup>52</sup>

Cobra is full of unrealized promise for development of a US operational capability. Bradley conceived it as a means of breaking the stalemate in the Norman Bocage country. Cobra was, as Major Cole C. Kingseed asserted, "a multidivisional attack on a narrow front."

Cobra achieved Bradley's end - breakthrough...Though Bradley was capable of creating operational opportunity, he had no experience in exploiting it...beyond tactical stalemate, Bradley had few well-developed ideas on how to exploit the breakthrough. He did not plan Cobra to the operational depth of the German defenses.<sup>53</sup>

Although the Allies swept across France in its entirety, did they never achieve a penetration into the operational depth of the German defenses? The Allied concern over channel ports allowed many German forces to stay ahead of them, and eventually establish a defensive

line along the German border.

This shortcoming was certainly not all Bradley's fault. The doctrine followed by the US Army at the time must be blamed as well. Even when the 4th Armored Division saw the opportunity to exploit into the German operational depth, they were not allowed to do so, again because of a doctrine limited to the tactical depth and an over-concern with channel ports.

Clearly, there are two major requirements to achieve successful operational exploitation and meet the criteria of mission accomplishment and ability to continue with future operations. The first is a clear understanding of operational maneuver, along with a doctrine that recognizes it. The second is a compilation of written guidance that specifies the requirements of how to conduct the operation. Does our current doctrine recognize operational maneuver, and is it specific enough to allow us to adequately plan and conduct operational exploitation?

#### V. Conclusion and Implications

Exactly how should a commander conduct operational exploitation? As stated in the introduction, our doctrine does a good job of discussing the concept of operational exploitation and how it relates to operation-



al art and maneuver warfare. Discussions of operational exploitation in Field Manual 100-5, Operations, Field Manual 100-15, Corps Operations, and Field Manual 71-100, Division Operations, all indicate that exploitations are "the chief means of translating tactical success into operational advantage."<sup>64</sup> They do not, however, lay down the level of detail necessary to plan and conduct such an operation.

Field Manual 100-5, for example, states that "exploitation forces should drive swiftly for deep objectives."<sup>65</sup> How "deep" is "deep"? Can a force exploit too deep? When does a commander know if he is beyond the tactical depth and into the operational depth? These questions are important and must be answered when planning the operation.

Field Manual 100-15 states that "the units which created the opportunity for the exploitation should not be expected to perform the exploitation to an extended depth. Since the exploitation will usually be initiated with these units, they should be replaced as soon as possible and the full exploitation accomplished by a mobile force specifically designed for that purpose."<sup>66</sup> How do we design a mobile force for that purpose? Will a modern US heavy division be appropriate? Is this telling us to plan on employing an operational maneuver group concept similar to the Soviet concept?

Operational exploitation is an extremely complex and complicated activity. The US Army has the base of theoretical knowledge in its doctrine that it needs to conduct operational maneuver. What it needs now are the details to plan and execute. These details are simply not found in the doctrinal manuals. There are some in the Army who are thinking of the details, however.

The III Corps Maneuver Booklet, published by the III(US) Corps, gives specific details about how to move elements of an army corps sized unit during operational maneuver. A few (not many) articles have been written that describe corps and division movement, and their rather challenging requirements, particularly in the area of logistics.

Inadequate logistics played a key role in the limited success of the Middle Don offensive, and was a major reason that the Allied advance across France finally ground to a halt at the German border. We must be able to sustain an exploitation if we expect to execute it. To do so requires a clear understanding of sustainment at the operational level. Current articles from our logistics community identify significant sustainment problems that a modern US heavy division would encounter in a deep operational exploitation role. Failure to solve these problems will limit our ability to conduct operational exploitation.

The Soviets have identified specific requirements to conduct an exploitation. Preparations leading to a penetration, actions during a penetration, how and when to commit the exploitation force, how to structure it, how to control it, how deep to send it, how to logistically support it - all have been detailed by the Soviets. These details are not found in US doctrine. They have been left up to the commander, who currently does not have the tools required to ensure that all of the details are considered.

I think that we need such detailed guidance in our doctrine. The US Army has got to come to grips not only with the operational level of exploitation, but with the tactical detail leading up to the operational level as well. This is becoming more critical as events unfold in western Europe and the rest of the world.

If the Conventional Forces, Europe (CFE) agreement proceeds to reduce troop levels in Europe, maneuver warfare and operational art will become even more important. We will at last be on equal footing with the Warsaw Pact, something we have been trying to accomplish for decades. While the Warsaw Pact may not have superiority in personnel or equipment, neither will NATO. The war, if it occurs, will be one of maneuver, and not one of attrition. We must start to examine how to conduct it. That means detailed guidance for operations, to

include exploitation.

Operational exploitation is not only applicable to the Western European theater of operations. Contingency operations throughout the world could require operational maneuver, to include exploitation. A scenario requiring a US force to land on a coast and drive deep into a country to secure operational objectives, encircle enemy forces, or link up with friendly forces, is possible or even likely to occur. All US Army leaders, therefore, must understand the details of such an operation.

I would make two recommendations. First, the Army should publish some more specific "how to" doctrine. A manual addressing how to conduct an exploitation, to include such requirements as the penetration, deception, breakthrough, command and control, logistics, and depth, would be appropriate. Another manual describing all of the detailed requirements for encirclements of enemy forces would also be appropriate.

Second, the Army should require its leaders to read some of the available Soviet studies concerning operational exploitation. The Soviet Army Studies Office at Fort Leavenworth, Kansas, has abundant literature available that addresses the details of Soviet exploitation operations in World War II. We need to make them readily available throughout the Army. These studies are still applicable to modern warfare, and answer many of

the "how to" questions of operational exploitation.

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